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NOSOVITSKIY, A.I., kandidat tekhnicheskikh nauk

Study of a gas flow containing fly ash. Trudy LPI no.2:183-199 '54.
(Heat—Radiation and absorption) (MIRA 8:8)
(Steam boilers)

NOSOVITSKIY, A. I.

AID P - 1319

Subject : USSR/Engineering

Card 1/2 Pub. 110-a - 1/19

Authors : Gurvich, A. M., Doc. of Tech. Sci., Blokh, A. G., and
Nosovitskiy, A. I., Kand. of Tech. Sci.

Title : Radiant heat transfer in a dust-containing gas medium

Periodical : Teploenergetika, 2, 3-10, F 1955

Abstract : Research tests are described concerning the heat emission characteristics of ash dust particles carried with the flow of combustible gases in boiler units. Those tests were conducted by the Central Scientific Research Institute for Boilers and Turbines (im. I. I. Polzunov) and by the Leningrad Polytechnical Institute. Formulae are presented for the calculation of coefficients of the radiant heat reduction and of the degree of blackness of dust-

BLOKH, A.G., kandidat tekhnicheskikh nauk; MOSOVITSKIY, A.I., kandidat
tekhnicheskikh nauk

Absorption strength of an air flow carrying coal dust. Teplo-
energetika 2 no.8:23-26 Ag '55. (MLBA 8:9)

1. Tsentral'nyy kotloturbinnyy institut
(Heat--Radiation and absorption)

NOSOVITSKIY, A. I., GURVICH, A. M., BLOKH, A. G.,

"On the Calculation of Heat Transfer in Furnaces," Aerodynamic and Heat Transfer Problems in Boiler and Furnace Processes; A Collection of Articles, Moscow, Gostenergoizdat, Moscow, 1958. 329 p.

Purpose: The book is intended for engineers and combustion specialists concerned with the design and operation of heating equipment and it is also for scientific workers and students of vtuzes.

KIRILLOV, I.I., doktor tekhn. nauk; NOSOVITSKIY, A.I., kand. tekhn. nauk;
FADDEYEV, I.P., kand. tekhn. nauk

Effect of moisture on the efficiency of turbine stages.
Teploenergetika 12 no.7:46-50 J1 '65. (MIRA 18:7)

1. Leningradskiy politekhnicheskii institut.

1ST AND 2ND COPIES		3RD AND 4TH COPIES	
NOSOVITSKIY B. M.		4	
<p>The Effect of Agglomerate on the Working of a Blast-Furnace. K. V. Mosserle and B. M. Nosovitskiy. (Metallurg, 1938, No. 11, pp. 48-50). (In Russian) The authors describe experience at the Kirov and Makeevka Ironworks, giving the characteristics of the agglomerate, iron ore and coke used. They state that the addition of agglomerate (up to 58%) increased the output capacity of the blast-furnace, while at the same time the fuel consumption was progressively decreased. This resulted in a saving of 20% of the coke when using 58% of agglomerate. The addition of agglomerate improves the permeability of the stock and enables the blast to be increased. On the other hand, the use of agglomerate renders the operation of the furnace erratic in several respects, control being more difficult. Some methods of improving control are briefly considered.</p>			
USSR-SSA METALLURGICAL LITERATURE CLASSIFICATION			
USSR-SSA		USSR-SSA	

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A Standard Specification for Agglomerate. K. V. Moserle and B. M. Nosovitskiy (Metallurg, 1938, No. 11, pp. 57-67) (In Russian). After briefly considering the working of agglomerating plants producing iron ore agglomerate for blast-furnaces, the authors examine the physico-mechanical properties and chemical composition of this product and the possibility of standardising these characteristics. Numerous practical data are given by way of illustration to the discussion.

U.S. S.E.A. METALLURGICAL LITERATURE CLASSIFICATION

Nosov, A. K., B. M.

(Chemical composition and physico-mechanical properties
of Krivof Rog agglomerate. B. M. Nosovskii and A. K.
Nosovskii. Sbornik Nauch. Trudov. Akad. Nauk. Dnepropetrovsk.
1955, No. 4, 24-35. Refers: Zhur., Akad. Nauk. 1954,
No. 11552. The particle-size composition of large samples
of Krivof Rog agglomerate (A) was studied in hoppers and
on the scaffolding of a blast-furnace plant. A connection
was shown between the mesh properties (drum test) and

Distr: 4E20

NOSOVITSKI⁴ B.M.

ME ✓ Testing elliptical tuyères. V. A. Sorokin, B. M. Nosovitski, B. L. Tavrog, N. E. Dunayev, and P. P. Chuvpylo (Ind. Inst., Donetsk). *Stal'* 15. 1972-1973 (1973) — 12 — 622

SOV/133-58-11-3/25

AUTHORS: Nosovitskiy, B.M.; Panev, G.A., Brodetskiy, L.V. and
Kuzub, A.G.

TITLE: An Experience in Smelting Ferrosilicon from Krivoy Rog
Ores (Opyt vyplavki ferrosilitsiya iz Krivorozhskikh
rud)

PERIODICAL: Stal', 1958, Nr 11, pp 969-976 (USSR)

ABSTRACT: An analysis of the results of prolonged operation of
blast furnaces on the Stalinsk Works producing ferro-
silicon and a comparison of their main operation indices
with the corresponding furnaces on the Dzerzhinsk and
Zaporozhstal' Works is given. Characteristic features
of the furnaces and the operational results obtained, raw
materials used are given in Tables 1, 2, 3 and 4,
respectively. The operation practice used on the
Stalinsk Works and its influence on the furnace perfor-
mance and, in particular, the influence of slag com-
position, the problem of distribution of the gas stream

An Experience in Smelting Ferrosilicon from Kriyev Rog Ores SOV/133-58-11-3/25

scaffolds - Figure 3 and some details of its structure - Figure 4, chemical composition of scaffold - Table 5. It is concluded that the smelting of ferrosilicon is characterised by a low-stability furnace driving, development of axial gas streams and on prolonged operation, the formation of ferrous scaffolds (by the formation of successive layers during variation of temperature conditions in the stack). An increase in slag basicity from 1.0 - 1.1 to 1.2 - 1.25 with simultaneous increase in the content of magnesia from 2.2 - 2.5% to 3 - 3.5% improves the desulphurisation of ferrosilicon and pig iron and decreases metal losses on the pig casting machine to 3-4% (instead of 7%). Variations in the alumina content of slag from 8-11% at slag basicities from 1.05 to 1.25 have no noticeable influence on the silicon content in ferrosilicon. In order to obtain ferrosilicon with a high silicon content, normal stock level and blast

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An Experience in Smelting Ferrosilicon from Krasn. Rog Ores

(open-hearth and welding slag, sinter and some types of iron ores); b) increase in the degree of peripheral working by an appropriate choice of charging system and an increase in the clearance between the large bell and furnace throat; c) periodic transfer of the furnace to the production of basic or foundry iron. There are 4 figures, 5 tables and 7 Soviet references

ASSOCIATIONS: Donetskiy industrial'nyy institut (Donets Industrial Institute) and Stalinskii metallurgicheskiy zavod (Stalinsk Metallurgical Works)

Card 3/3

NOSOVITSKIY, B.M.

Regulating the lumpiness of sinter. Izv.vys.ucheb.zav.;
chern.met. no.4:37-49 '60. (MIRA 13:4)

1. Donetskii industrial'nyy institut.
(Sintering)

NOSOVITSKIY, B.M.; PAPIN, T.I.; AKHMADEYEV, Kh.A.

Improving the blast furnace process by the use of graded ore.
Bul.TSIICHM no.9:39-41 '60. (MIRA 15:4)

1. Donetskii industrial'nyy institut (for Nosovitskiy). 2. Kon-
stantinovskiy metallurgicheskii zavod (for Papin, Akhmadeyev).
(Blast furnaces)

NOSOVITSKIY, B.M.; PAPIN, T.I.; TSYS', V.D.; AKHMADEYEV, Kh.A.

Blowing-in the blast furnace for the production of ferromanganese.
Metallurg 6 no.7:8-10 J1 '61. (MIRA 14:6)

1. Donetskij politekhnicheskij institut i Konstantinovskiy
metallurgicheskij zavod.
(Blast furnaces) (Ferromanganese)

BROVMAN, Ya. V.; NOSOVITSKIY, L. I.; BEZDUDNYY, V. G.

"Handbook for mining engineers and technicians." Shakht.
stroil. 7 no. 6: 31-32 Je '63. (MIRA 16:7)

1. Zamestitel' glavnogo inzhenera kombinata Donetskshakhtostroy
(for Brovman). 2. Zamestitel' glavnogo mekhanika kombinata
Donetskshakhtostroy (for Nosovitskiy). 3. Glavnyy inzh. tresta
Shakhtostroyemekhanizatsiya (for Bezdudnyy).
(Mining engineering)

NOSOVITSKIY, S.Ya.

Primary suture of the flexor tendon of the fingers. Ortop., travm.
protez. 19 no.1:29-34 Ja-F '58. (MIRA 11:4)

1. Iz kafedry khirurgii (zav. - prof. K.I.Pikin) Khar'kovskogo
meditsinskogo instituta i Ukrainskogo nauchno-issledovatel'skogo
instituta neotlozhnoy khirurgii i perelivaniya krovi (dir. - dotsent
Yu.M.Orlenko)

(FINGERS, surg.

primary suture of flexor tendon (Rus))

NOSOVITSKIY, Yu. F.

Calculating selenium rectifiers having capacity-input filters.
Radiotekhnika 11 no.5:65-72 My '56. (MLRA 9:9)
(Electric current rectifiers)

U.S.S.R.

Influence of granulated superphosphate on the yield of
some agricultural crops. N. I. Kukharuk and O. I.
Nosovska. *Doklady Akad. Nauk Ukr. R.S.S.R.* 1963,
47, 11622a. For summary, 413-414; cf. C. I. 46, 6307;
47, 11622a. The superphosphate was neutralized with 10%
decoloration and fertilizers were applied in the spring
and in the fall. The granulated form was more effective
than the ordinary form for millet, for sugar beets, and for
corn. The granules used were 1.0-3.0 mm. in diam.
Mikhailov G. G. (Minsk)

*Instit. Plant Physiology and Agrochemistry,
Acad. Sci. Ukr. S.S.R.*

KUKHARENKO, N.I.; NOSOVSKA, O.I.

Migration of phosphoric acid from granules of superphosphate. Dopovid
Akad. Nauk Ukr. R.S.R. '53, No.1, 41-5. (MLRA 6:4)
(CA 47 no.21:11622 '53)

NOSOVSKAYA, V.I.

Use of a staphylococcal anatoxin in purulent processes. Pedia-
triia 42 no.3: 68-72 M'r'63 (MIRA 17:2)

1. Iz kafedry detskikh bolezney (zav. - prof. S.I. Ignatov)
Lvovskogo gosudarstvennogo meditsinskogo inst'tuta.

MAN'KOVSKIY, G.I., nauchn. sotr.; GALANOV, P.I., inzh.; YERSHOV, N.F.,
 nauchn. sotr.; MURAV'YEV, D.S., nauchn. sotr.; NOSOVSKIY,
 A.A., inzh.-konstruktor; POLGLYAKO, L.G., nauchn. sotr.;
 TIMOSHPOLO'SKIY, Ye.Ya., inzh.-konstruktor; FEYGIN, L.M.,
 inzh.-konstruktor; SHVETS, V.V., inzh.

[Boring mine shafts with machines made by the Ural Factory
 for Heavy Machinery Manufacture] buroenie stvolov shakht usta-
 novkami UZTM. Moskva, Izd-vo "Mehra," 1964. 131 p.

(MIRA 17:8)

1. Chlen-korrespondent AN SSSR (for Man'kovskiy). 2. Institut
 gornogo dela imeni A.A.Skochinskogo (for Man'kovskiy, Yershov,
 Murav'yev, Shvets). 3. Ural'skiy zavod tyazhelogo mashino-
 stroeniya imeni Sergo Ordzhonikidze (for Nosovskiy, Timoshpol'skiy,
 Feygin, Galanov).

NOSOVSKIY, A.A., inzh.

Studies preceding the design of a boring column in the USSR
boring equipment. Shabli'stoi. 9 no.4:11-13 4p '65.

(Mik. 13:5)

1. Ural'skiy zavod lyubelogo mashinostroyeniya imeni Serge
Ordzhonikidze.

DOBROTINA, Z.A., kand. tekhn. nauk; MURATOV, V.A., inzh.; NOSOVSKIY, B.I.,
inzh.; FIL'CHAKOV, A.A., inzh.

Growth and heat resistance of deposited cast iron. Svar. proizv.
no.5:13-14 My '64. (MIRA 18:11)

1. Zhdanovskiy metallurgicheskiy institut (for Nosovskiy).
2. Zhdanovskiy zavod tyazhelogo mashinostroyeniya (for
Fil'chakov).

NOSOVSKIY, I.; DUBOVENKO, Ye., red.; LEVCHUK, A., tekhn.red.

[For 200 poods] Za 200 pudov! Kiev, Gos.izd-vo polit.lit-ry
USSR, 1960. 57 p. (MIRA 13:5)

1. Sekretar' Konstantinovskogo raykoma Kommunisticheskoy partii
Ukrainy, Stalinskoy oblasti (for Nosovskiy).
(Grain)

POLOVNIKOV, I. G.

Polovnikov, I. G.

"Investigation of the effect of the external gas medium on the appearance and development of the basic types of wear on machine parts." Odessa Polytechnic Inst. Kiev, 1955. (Dissertation For the Degree of Candidate in Technical Sciences).

Knizhnaya letopis'

Nosovskiy, I. G.

137-58-5-10714

Translation from: Referativnyy zhurnal, Metallurgiya. 1958, Nr 5, p 263 (USSR)

AUTHOR: Nosovskiy, I. G.

TITLE: An Investigation of Metal Wear in Various Gaseous Mediums
(Issledovaniye iznashivaniya metallov v razlichnykh gazovykh sredakh)

PERIODICAL: Tr. 1-y nauchno-tekhn. konferentsii. Kiyevsk. inst grazhd. vozdushn. flota. Moscow, 1956, pp 187-207

ABSTRACT: The effect of the composition of an external gaseous medium on the generation and development of the main types of wear is investigated. The tests were run in Ar, O₂, and air on a special machine, model KE-2, designed by B. I. Kostetskiy and V. D. Yelisseyev. The influence of the external medium is analyzed by comparison of the microstructure of the surfaces of friction, determination of the reduced wear, and measurement of the force of friction. A gaseous environment exerts a decisive ef-

137-58-5-10714

An Investigation of Metal Wear in Various Gaseous Medium

intensity of the diffusive flow in the surface layers of the metal is such that regardless of rate of slide, oxidizing wear is the only type observed. The wear products are various types of oxides. In Ar the only type of wear occurring, regardless of rate of slide, is thermal. The intensity of this wear exceeds by several times the intensity of oxidizing wear, and the wear products are metallic particles of different dimensions. When friction occurs in an air atmosphere, the amount of O_2 is inadequate for oxidizing wear to occur throughout the entire range of speeds and, therefore, as the rate of slide increases, a transition from oxidizing to thermal wear is observed and from thermal back to oxidizing. This transition is conditioned by the magnitude of the coefficient of diffusion, which depends upon temperature. Moreover, the transition of thermal to oxidizing wear is affected by change in the solubility of O_2 in Fe on transition from the α to the γ modification. On thermal wear in an air atmosphere, the wear products constitute a mixture of particles of metal and oxides. The intensity of thermal wear in an air atmosphere is greater than the intensity of oxidizing wear, but considerably less than the intensity of thermal wear in an Ar atmosphere. An external gaseous medium

137-58-5-10714

An Investigation of Metal Wear in Various Gaseous Mediums

decline in ductility facilitates contact between the rubbing surfaces, and is conducive to seizing.

N. T.

1. Metals--Oxidation
2. Metals--Friction
3. Gases--Applications

SOV/137-58-7-15758

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 265 (USSR)

AUTHOR: Nosovskiy, I. G.

TITLE: Investigation of the Wear of Steel 45 in Air, Argon, and Oxygen
(Issledovaniye iznashivaniya stali 45 v vozdukhe, argone i kislorode)

PERIODICAL: V sb. Razvitiye teorii treniya i iznashivaniya, Moscow,
AN SSSR, 1957, pp 181-193

ABSTRACT: Bibliographic entry

- | | |
|---------------------------------|----------------------------------|
| 1. Steel--Mechanical properties | 2. Air--Metallurgical effects |
| 3. Argon--Metallurgical effects | 4. Oxygen--Metallurgical effects |

SOV/126-7-1-13/28

AUTHORS: Kostetskiy, B.I., Nosovskiy, I.G., Topekha, P.K.,
Trotsik, O.I. and Kareta, N.L.

TITLE: X-Ray Investigation of the Structure of Rubbing Surfaces
(Rentgenograficheskoye issledovaniye struktury poverkhnostey treniya)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1959, Vol 7, Nr 1,
pp 95-101, (USSR)

ABSTRACT: By means of a general metallographic analysis method it was established that in the course of service of steel in an oxidizing atmosphere, diffusion of oxygen atoms in steel takes place in plastically deformed layers of the parts rubbing against each other, as the result of which a layer forms on the rubbing surfaces, consisting of a solid solution of oxygen in iron and the chemical compounds FeO , Fe_2O_3 and Fe_3O_4 (Refs.1-3). These layers have been called "white unetchable layers"; however, there is no

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rapid cutting, is a hardened structure. In order to confirm the authors' hypothesis of the nature of white layers, and to elucidate the part played by oxygen in the mechanism of oxidizing wear, the necessity arose of carrying out a complex investigation of the white layers forming during oxidizing and thermal wear. Specimens of steel St.45 and Armco iron were rubbed by sliding. The normal pressure applied to the specimen in the experiment was maintained constant (10 kg/cm^2). The rates of slip chosen were similar to those in oxidizing and thermal wear by hardening. A series of experiments was carried out in various gaseous media (air, argon, oxygen) with the aim of creating favourable conditions for the development of various aspects of wear. The preparation of the metal surface layers for the investigation was carried out under certain definite experimental conditions. The specimens were tested on the KE-2 and KE-4 machines

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carried out, taking into consideration the conditions of the formation and properties of secondary structures arising in the course of rubbing, in connection with definite relationships known from the theory of wear. A series of specimens (see Table p.97) were prepared for this study. X-rays were used for the study of the phase composition of the thin surface layers of secondary structures forming during the rubbing process. The X-ray exposure was carried out by a narrow pencil of X-rays at a diameter of the illuminated portion of 0.12-0.15 mm. The diameter of the X-ray camera was 57 mm. Irradiation from an iron anticathode was used. The source of X-rays was a sharp focusing X-ray tube of B.Ya. Pines' construction. 150 exposures were taken. In Fig.1 a photomicrograph of the rubbing surfaces of a specimen of steel St45, tested in air atmosphere, is shown. The rate of slip was 0.4 m/sec. In Fig.2 the photomicrograph of the cross-section of the surface layers of the specimen, tested

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1.5 m/sec. Fig.4 is a photomicrograph of the cross-section of surface layers of the specimen, tested in an atmosphere of air at a slip rate of 1.5 m/sec. Fig.5 is a photomicrograph of the wear surface of the specimen, which had been tested in an atmosphere of air at a slip rate of 6 m/sec. Fig.6 is a photomicrograph of the cross-section of the surface layers of the specimen which had been tested in an atmosphere of air at a slip rate of 6 m/sec. Fig.7 is a photomicrograph of the wear surface of the specimen which had been tested in an atmosphere of oxygen at a slip rate of 1.5 m/sec. Fig.8 is a photomicrograph of the cross-section of the surface layers of the specimen which had been tested in an atmosphere of oxygen at a slip rate of 1.5 m/sec. As a result of experiments, the authors have arrived at the following conclusions:
(1) Under various conditions of rubbing thin surface layers of steel undergo a fundamental change in structure

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X-Ray Investigation of the Structure of Rubbing Surfaces

(2) Investigations of the structure of the surface layers of steel and iron have confirmed the conclusions, arrived at by the authors in their work on the classification of the aspects of wear, as to the occurrence of oxidizing and thermal wear of metal.

(3) An X-ray structural analysis of the rubbing surfaces of iron and steel has shown that in the first type of wear hardening no thermal and chemical reactions occur on the rubbing surfaces. The main process, determining this aspect of wear, is the plastic deformation of the metal, as well as the formation and destruction of metallic bonds. In oxidizing wear, the main factors are the chemical processes of the interaction between metal and oxygen from the air. In all series of experiments on the oxidizing wear, lattices of the chemical compounds FeO , Fe_3O_4 and $\alpha\text{-Fe}_2\text{O}_3$ were observed. In thermal wear the main factors are thermal processes taking place

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austenite-martensite are observed in the rubbing surfaces of steel specimens.

There are 8 figures, 1 table and 10 Soviet references.

ASSOCIATION: Kiyevskiy institut grazhdanskogo vozdushnogo flota
(Kiyev Institute of the Civil Air Fleet)

SUBMITTED: April 11, 1957

S/137/61/000/007/067/072
A060/A101

AUTHORS: Kostetskiy, B. I.; Nosovskiy, I. G.; Golego, N. L.; Topekna, P.K.
TITLE: Classification of metals and alloys according to their wear resistance
PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 7, 1961, 35, abstract 7Zh256 ("Tr. 3-y Vses. konferentsii po treniyu i iznosu v mashinakh. T.I.", Moscow, AN SSSR, 1960, 15-27)

TEXT: In order to devise a classification of metals according to characteristics of their oxidability and seizability, a series of tests have been carried out on a friction machine KE-2 which makes it possible to conduct tests in different gaseous media. Specimens of Fe, steel 45, Бр. АМ₄ (Br. AMts), Бр. АЖМ₄ (Br. AZhMTs), Al, Sn, Б-83 (B-83), Pb, Бр.О-14 (Br. O-14), Бр. С-30 (Br. S-30), Bi, Sb, Cd, Ni, Zn, Mg, and Co were tested under dry friction in air, O₂, and argon and subsequently studied by metallography. The friction of specimens was carried out against a rotating disk from steel 45 at a displacement velocity of the friction surfaces of 6 m/sec and a specific pressure of 7.5 kg/cm². During the

KOSTETSKIY, Boris Ivanovich, doktor tekhn. nauk; NOSOVSKIY, Igor'
Georgiyevich, kand. tekhn. nauk; FREYS, G.A., doktor tekhn.
nauk, reizenzent

[Wear resistance and antifriction properties of machine
parts] Iznosostoikost' i antifriktsionnost' detalei ma-
shin. Kiev, Tekhnika, 1965. 205 p. (MIRA 18:10)

KOSTETSKIY, B.I. (Kiyev); NOSOVSKIY, I.G. (Kiyev); NIKITIN, L.V. (Kiyev)

Role of oxygen in sliding friction. Mashinovedenie no.6:96-103
'65. (MIRA 18:11)

L 11423-66 EWT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD/DJ

ACC NR: AP6002115

SOURCE CODE: UR/0369/65/001/006/0675/0682

52
52.

AUTHOR: Kostetskiy, B.I.; Nosovski, I.G.; Nikitin, L.V.

ORG: Kiev Institute of Civil Aviation Engineers (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii) B

TITLE: Friction and wear processes at various oxygen contents in the contact zone

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 6, 1965, 675-682

TOPIC TAGS: oxygen, metal friction, wear resistance, metal property, carbon steel

ABSTRACT: The object of the study was to determine the effect of oxygen content in the contact zone on the friction and wear processes, to determine the optimum oxygen content under various friction conditions, and to develop methods of controlling the degree of oxidation of the friction surfaces in order to insure a minimum wear. The experiments involved dry sliding friction on cylindrical samples of 45, 60, and U10 steels. The following conclusions were reached: (1) The extent of oxidation and the properties of the secondary structures formed depend on the amount of oxygen in the ambient air

L 11423-66

ACC NR: AP6002115

place, and as the pressure drops down to 10^{-5} mm Hg, the gripping reaches its maximum. (3) Effects of inversion in the effect of oxygen are observed when oxygen is present in the gaseous medium in amounts corresponding to air pressures from 760 to 10^{-5} mm Hg. Thus, in dry friction of carbon steels, the minimum wear rate corresponds to air pressures from 10 to 1 mm Hg; at higher or lower pressures, the wear rate increases. When there is a considerable oxygen deficiency, the chief factors determining the friction and wear processes in sliding friction are the physical and mechanical properties of the steels, chemical factors being insignificant; also great importance in these processes is the heat evolved in the friction zone. Analysis of the role of oxygen in sliding friction opens up extensive possibilities of controlling the wear resistance and antifriction properties of friction pairs by regulating the oxygen content in the friction zone, using the positive effect of heat, and considering the predominant influence of mechanical properties when the oxygen content is insufficient. Orig. art. has: 7 figures.

SUB CODE: 11 / SUBM DATE: 28Jul65 / ORIG REF: 014

L 25838-66 EWT(m)/EWP(w)/T/EWP(t) LJP(c) JD/WB/DJ
 ACC NR: AP6008702 SOURCE CODE: UR/0380/65/000/006/0096/0103
 AUTHORS: Kostetskiy, B. I. (Kiev); Nosovski, I. G. (Kiev); Nikitin, L. V. (Kiev)
 ORG: none
 TITLE: The role of oxygen in sliding friction
 SOURCE: ²⁷Mashinovedeniye, no. 6, 1965, 96-103
 TOPIC TAGS: friction, metal hardness, metal oxidation, metal wear, oxidation, steel/
 45 steel, 60 steel, U10 steel
 ABSTRACT: ¹⁸A study is made of certain aspects of oxidation of metal surfaces under
sliding friction. A review of research in this field is given, including references
 to fifteen research articles. Three effects are dealt with in the current article:
 1) the effect of the degree of rarefaction of the air (the quantity of oxygen in the
 friction zone) on the quantitative and qualitative characteristics (form and intensity)
 of wearing with air rarefaction of 10^{-5} mm Hg; 2) the effect of external mechanical
 influences (the rate of slip and the unit pressure) on the rate of wearing.

L 25838-66

ACC NR: AP6008702

Cylindrical specimens of external diameter 45 mm, internal diameter 36 mm, and height 6 mm were prepared from steels 45, 60, and U10 heat treated to achieve the desired hardness. Plots of test measurement data are given. The authors conclude that previous studies of the oxidation effect were not optimal in terms of isolating the development of friction and wearing processes. Rarefaction in general increases the intensity of wearing. Additional conclusions relate to the mechanical and chemical processes of wearing. The authors suggest the use of oxygen control in reducing friction wearing. Orig. art. has: 9 figures.

SUB CODE: 11/ SUBM DATE: 14Jan65/ ORIG REF: 015

KARLOV, N.M.; NOSOVSKIY, M.F.

Discovery of marine Chokrak fauna in the supra-ore stratum of Nikopol'
District. *Bul.MOIP. Otd.geol.* 28 no.1:65-68 '53. (MLBA 6:11)
(Nikopol' District--Paleobotany) (Paleobotany--Nikopol' District)

~~NOSOVSKIY, M.F.;~~ BELYANKIN, D.S.' akademik.

Konka horizon in the Dnieper valley. Dokl. AN SSSR 90 no.5:865-866 Jo '55.
(MLRA 6:5)

1. Nauchno-issledovatel'skiy inatitut geologii pri Dnepropetrovskom gosudarstvennom universitete (for Nosovskiy). 2. Akademiya nauk SSSR (for Belyankin). (Konka Basin--Geology, Stratigraphic)

Describes a Dnepr horizon which is widely distributed within the boundary of the Crimean-Caucasian region. Gives the geological history of the Konkakiy stage in the northern part of the Korijsfenskiy Bay.

HOSOVSKIY, M.F.; BELYANKIN, D.S., akademik.

New discoveries of Oncophora strata in the south of Ukraine. Dokl.AN SSSR
91 no.3:629-630 J1 '53. (MLHA 6:7)

1. Akademiya nauk SSSR (for Belyankin).
(Ukraine--Geology, Stratigraphic) (Geology, Stratigraphic--Ukraine).

Nosovskiy, M. F.

USSR/ Geology - Paleontology

Card 1/1 Pub. 22 - 43/54

Authors : Nosovskiy, M. F.

Title : Oncophora of Mediterranean deposits in southern Ukraine

Periodical : Dok. AN SSSR 106/2, 335-337, Jan 11, 1956

Abstract : Geological data are presented regarding the Myocene epoch deposits (oncophora) discovered in certain regions of southern Ukraine. Seven references: 5 USSR, 1 Germ. and 1 Polish (1882-1953).

Institution : Dnepropetrovsk State Univer. in. 300-th Anniversary of Uniting the Ukraine with Russia

Presented by: Academician N. S. Shatskiy, August 9, 1955

AUTHOR: Nosovskiy, M.F.

11-10-6/23

TITLE: The Meridional Tectonic Break at the South-Eastern Part (Azov Area) of the Ukrainian Crystalline Mountain Range (O meridional'nom tektonicheskom razlome v yugo-vostochnoy (Priazovskoy) chasti Ukrainskogo kristallicheskogo massiva)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1957, # 10, p 61-66 (USSR)

ABSTRACT: The article deals with up-to-date geological data which support the theory of the existence of a meridional tectonic break along the western part of the Azov crystalline mountain range, and illustrates the existing regularity of the present distribution of facies of sedimentary rocks on the territory. Characteristic features of this region are the results of tectonic movements, whereby the break becomes especially apparent in the vicinity of Pavlograd, from where it extends south along the Volch'ya river in meridional direction via the town of Orekhov to the Azov Sea. The author describes the various changes which had occurred during the course of different geo-

11-10-6/23

The Meridional Tectonic Break at the South-Eastern Part (Azov Area) of the Ukrainian Crystalline Mountain Range

range. It must be assumed that manganese oxide ore deposits had formed in the Azov Sea region along a rather narrow coastal strip during the Pre-Cambrian period. Examinations of the magnitude and distribution of facies of sedimentary rocks of this area lead to the assumption that the forming of the "Azov break" occurred during the middle of the Paleogene period, coinciding with an epoch of extensive geologic changes in Europe. Factual data show that the course of shore lines of Tertiary seas, the magnitude of deposits and especially the distribution of facies within the north-eastern part of the Black Sea depression is largely influenced by tectonic movements.

There are 1 map, and 14 references, all of which are Slavic (Russian)

ASSOCIATION: Dnepropetrovsk State University (Dnepropetrovskiy gosudarstven-niy universitet)

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 12,
p 17 (USSR) 15-57-12-16803

AUTHOR: Nosovskiy, M. F.

TITLE: Chokrak Deposits in the Northeastern Part of the
Black-Sea Basin (K voprosu o nalichii chokrakskikh
otlozheniy v severo-vostochnoy chasti Prichernomorskoy
vpadiny)

PERIODICAL: Nauchn. zap. Dnepropetr. un-ta, 1957, Vol 58, pp 71-78

ABSTRACT: The author identified a group of Chokrak-type molluscs
from thin clays and limestones encountered in a number
of drill holes in the Konka-Molochnaya interstream
area south of Zaporozh'ye. These molluscs are Ervilia
praepodilica Andrus., Diplodonta rotundata Mont., Arca
turonica bosporana David., Cerithium cattleyae Baily,
and others. Similar light green marly clays with . . .

MOSOVSKIY, M.F.

Mediterranean sediments in the Bazavluk Valley (southern Ukraine).
Izv. vys. ucheb. zav.; geol. i razv. 1 no.10:83-87 0 '58.
(MIRA 12:9)

1. Dnepropetrovskiy gosudarstvennyy universitet.
(Bazavluk Valley--Geology, Stratigraphic)

NOSOVSKIY, M.F.

Effect of erosion on the distribution of manganese ore deposits
in the southern Ukraine. Izv.vys.ucheb.zav.; geol.i razv.
2 no.4:110-123 Ap '59. (MIRA 12:12)

1. Dnepropetrovskiy gosudarstvennyy universitet.
(Ukraine--Manganese ores)

NOSOVSKIY, M.F.

Lamellibranchiata of Oligocene ~~Cortula~~ beds of the Black Sea
Lowland. Paleont. zhur. no.3:29-39 '62. (MIRA 15:9)

1. Nauchno-issledovatel'skiy institut geologii Dnepropetrovskogo
universiteta.
(Black Sea Lowland--Lamellibranchiata, Fossil)

KARLOV, N. N.; NOSOVSKIY, M. F.

Bentonite in Lower Sarmatian sediments of the Black Sea trough.
Sov. geol. 5 no.10:126-131 0 '62. (MIRA 15:10)

1. Dnepropetrovskiy gosudarstvennyy universitet.

(Black Sea lowland—Bentonite)

NOSOVSKIY, M.F.; SAVENKO, N.G.

Stratigraphic position of the spheroidin zone in the Maikopian
deposits of the Black Sea Depression. Dokl. AN SSSR 148 no.5:
1179-1181 F '63. (MIRA 16:3)

1. Nauchno-issledovatel'skiy institut geologii pri Dnepropetrovskom
gosudarstvennom universitete. Predstavleno akademikom A.L.Yanshinym.
(Kherson Province--Geology, Stratigraphic)

NOSOVSKIY, M.F.

Oligocene of the Mikopol' manganese ore basin. Bul. MOIP.
Otd. geol. 38 no.5:3-19 S-O '63. (MIRA 17:1)

BARANOVA, N.M.; BASS, Yu.B.; BOGDANOVICH, V.V.; VIL'GOS, Ye.F.;
 GRAZHDANTSEV, I.I.; GRYAZNOV, V.I.; GUTOROVA, Ye.D.;
 KABRIZON, V.M.; MOLYAVKO, G.I.; MOROKHOVSKAYA, M.S.;
 NOSOVSKIY, M.F.; ROMODANOVA, M.P.; SOSNOV, A.A.;
 SHEVCHENKO, Ye.S.; USENKO, I.S.; Prinsipali uchastiye:
 BONDAR', A.G., inzh.-gidrogeolog; SACHENKO-SAKUN, V.M.,
 st. topograf; SHELUKHINA, A.V., st. tekhnik-geolog;
 STOPIK, M.A., st. tekhnik-geolog; REUTOVSKAYA, E.A.,
 tekhnik; BETEKHTIN, A.G., akademik, glav. red. [deceased]

[Nikopol' manganese-ore basin] Nikopol'skii margantsevo-
 rudnyi bassein. Moskva, Izd-vo "Nedra," 1964. 534 p.
 (MIRA 17:6)

1. Institut geologicheskikh nauk AN Ukr.SSR (for
 Baranova, Molyavko, Romodanova, Usenko). 2. Nauchno-
 issledovatel'skiy institut geologii Dnepropetrovskogo
 gosudarstvennogo universiteta (for Gryaznov, Nosovskiy).
 3. Trest "Dneprogeologiya" (for Bogdanovich, Kabrizon).
 4. Trest "Kiyevgeologiya" (for Bass). 5. Trest "Nikopol'-
 Marganets" (for Vil'gos, Grazhdantsev, Sosnov).

NOSOVSKIY, M.F. [Nosovs'kiy, M.F.]; PASECHNYY, G.V. [Pasichnyi, H.V.]

Oligocene and Miocene boundary layers in the Black Sea Depression.
Geol. zhur. 25 no.2:36-44 '65. (MIRA 18:6)

1. Nauchno-issledovatel'skiy institut geologii Dnepropetrovskogo universiteta i trest "Dneprogeologiya".

NOSOVSKIY, N. I.

Problems in the use of chemistry in the manufacture of machinery at the plenum of the Technical-Economic Council of the State Committee on the Machinery Industry. Vest. mashinostr. 45 no.5:81-82 My '65. (MIRA 18:6)

1. Glavnyy spetsialist Tekhniko-ekonomicheskogo soveta Gosudarstvennogo komiteta po mashinostroyeniyu pri Gosplane SSSR.

NOSOVSKIY, T.A.

Effect of the blunting of a woodcutting instrument on the
process of cutting. Der. prom. 13 no.5:13-14 My '64. (MIRA 17:6)

1. L'vovskiy lesotekhnicheskii institut.

NOSOVSKIY, T.A.

Kinematic maintenance of the cutting properties of tools. Ser. 1 ser.
prom. no. 1:24-26 Ja-Mr '65. (MTR 18:10)

NOSOVSKIY, Vladimir Vasil'yevich, inzh., mladschiy nauchnyy sotrud.;
TRILSSKIY, S.V., red.; GANYUSHIN, A.I., red. izd-va; NIKO-
LAYEVA, I.H., tekhn. red.

[Manufacture and assembly of bridge spans] Izgotovlenie i
montazh proletnykh stroenii mostov. Moskva, Nauchno-tekhn.
izd-vo M-va avtomobil'nogo transp. i shosseiinykh dorog;
RSFSR, 1961. 77 p. (MIRA 14:5)

(Bridges, Concrete)

KALASHNIKOV, N.A., kand.tekhn.nauk; NOSOVSKIY, V.V., inzh.

Economic indices of reinforced concrete spans with composite
beams. Transp. stroit. 12 no.4:32-35 Ap '62. (MIRA 15:5)
(Bridges, Concrete)

NOSOVSKIY, V.V., inzh.

Economic indices of the production of wire-reinforced beams.
Izv. for. 25 no.5:18-19 My '62. (MIRA 15:6)
(Reinforced concrete construction)

NOSOVSKIY, T.A., starshiy prepodavatel'

Studying the process of woodcutting with blunt cutters.
Les., bum. i der. prom. no.1:20-27 '65. (MIRA 18:12)

NOSOVSKIY, Ye.M.

[Experience of collective Stakhanovite work in a port] Opyt kollektivnoy stakhanovskoy raboty porta, Moskva, Izd-vo Ministerstva rechnogo flota SSSR, 1951. 69 p. (MIRA 9:9)
(Docks)

NOVOVSKIY, Ye.M.

How we organize cargo transportation without barge crews. Rech.
transp. 14 no.4:30-31 Ap '56. (MLRA 9:8)

1. Nachal'nik Zapadnogo porta Moskovskogo parokhodstva.
(Inland water transportation)(Cargo handling) (Barges)

NOSOVSKIY, Ye. M.

Organization of passenger traffic. Rech. transp. 21 no.9:
12-13 S '62. (MIRA 15:9)

- 1. Zamestitel' nachal'nika Moskovskogo passazhirskogo agentsiva.
(Merchant marine--Passenger traffic)

NOSOVSKIY, Yu.P., inzh.

Amateur movie group. Oput. rab. po tekhn. inform. i prop.
no.3:41-42 '63. (MIRA 16:12.

1. Byuro tekhnicheskoy informatsii mesta No.1 "Saratovskiy
tyazhstroy."

NOZOWA, Z. A.

Poland/Chemical Technology - Chemical Products and Their Application. Silicates.
Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62282

Author: Nozowa, Z. A., Jakowlewa, M. E.

Institution: None

Title: Opaque Glazes for Sanitary-Building Articles

Original

Periodical: Zmetnione szkliwa dla wyrobów sanitarno-budowlanych, Szkło i
ceram., 1956, 7, No 3, 83-87; Polish

Abstract: A translation. See Referat Zhur - Khimiya, 1955, 12191

NOSOWICZ, Boguslaw

Utilization of interference of light in the mining industry.
Wiadom gorn 11 no. 4:116-117 Ap '60.

NOSOWICZ, Boguslaw

Jamins, an interferometer adapted to the measurement of the methane content in the air of mines. Gornictwo Gliwice no.3:121-130 '61.

NOSOWICZ, Boguslaw; SIKORA, Bogdan

Noise damping of high-strength mine fans in air ducts. Gornietwo
Gliwice no.5:123-133 '63.

NOSOWICZ, M. ; SLIWINSKI, W.

For the position of Chief Engineer of Motorization. p. 148.

(MOTORYZACJA, Vol. 12, No. 6, June 1957, Warszawa, Poland.)

SO: Monthly List of East European Accessions (EEAL) 1.c. Vol. 6, No. 10, October 1957. Uncl.

NOSOWICZ, Mieczyslaw, doc. inz.; SLIWINSKI, Wladyslaw

The technological background of automotive transportation in
Krakow Voivodeship. Przegl mech 21 no.9/10:293-294.
10-25 My '62.

1. Politechnika, Krakow

ROMANIA / Pharmacology, Toxicology, Cardiovascular
Drugs.

V

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 94289

Authors : Degen, E.; Nossa, L.; Simonetti, O.

Inst : Not given

Title : Increase of the Arterial Pressure and Nervous
Disorders During Treatment with Serpasil.

Orig Pub : Rev. Med. (RPR), 1957, 3, No. 6, 48-51.

Abstract : Four cases are described of the development of
a paradoxical reaction in the form of an increase
in blood pressure and the appearance of nervous
disorders in patients with hypertonia who
were receiving 0.125 - 1 mg serpasil (reser-
pine) (1) for 6 - 10 days. The seriousness of

ECSSA, L., dr.; MIHAILESCU, I., dr.; MINEA, V., chimist

Idiopathic hyperlipemia, diabetes mellitus, chronic exocrine pancreatic diseases and obesity. Med. int., Bucur. 12 no.1:119-124 Ja '60.

1. Lucrare efectuata la Spitalul unificat Dej.
(DIABETES MELLITUS, complications)
(LIPIDS, blood)
(PANCREAS, diseases)
(OBESITY, complications)

NOSSA, L., dr.; SIMONETTI, O., dr.; BANICEANU, M., dr.; MIHAILESCU, I., dr.

Chronic dermatomyositis with visceral onset. Med. intern , Bucur
12 no.11:1713-1717 N '60.

1. Lucrare efectuata in Spitalul unificat, Dej.
(DERMATOMYOSITIS case reports) (GASTROENTEROLOGY)
(BILE DUCTS diseases) (KIDNEY DISEASES etiology)

NOSSE, L., dr.; BIRD, V., dr.; PAVEL, E., dr.; SAMAU, L., dr.

Exudative pericarditis with prolonged evolution. Med. intern. 14
no.8:1005-1008 Ag '62.

1. Lucrare efectuata in Spitalul unificat Dej.
(PERICARDITIS)

NOSSA, L

NOSSA, L.

NOSSA, L., MD; CIOABA, O., MD; MINCA, I., Chemist.

Unified Hospital in Dej (Spitalul Unificat din Dej) - (For all)

Bucharest, Viata Medicala, No 9, 1 May 63, pp 627-628.

"Acute Porphyria in the Pseudocystopyelic Form."
(Paper submitted to the Sub-branch of the S.S.C.M., Dej,
at the meeting of 3 April 1962.)

MOSSA, L., dr.; BIRO, V., dr.

Cardiac neuroses caused by food allergens. Med. intern. 15
no.9:1093-1098 S '63.

1. Lucrare efectuata in Spitalul unificat din Dej.
(NEUROSES, ANXIETY) (FOOD ALLERGY)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001137410001-3

SUGAR, 1954-55

JAN. 1955

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001137410001-3"

NOSBERGER, V.

Potato-starch industry in the USSR. P. 254. SOVETSKA
VEDA:POTRAVINARSTVI. Vol. 3, No. 1. January 1955.

SOURCE: East European Accessions List, (EAL), Library of Congress,
Vol. 4 No. 12, December 1955.

KOSSEKAL, V.

"New type of edible sirup; maltose sirups, their manufacture and use."

PRŮMYSL SŤRUPŮ. Praha, Czechoslovakia. Vol. 6, no. 10, 1965

PRUGAR, J., inz., ScC.; FANTIK, J., inz.; NOSSBERGER, V., dr. inz.

Research on improvement of technological properties of wheat
flour by addition of ascorbic acid. Vest ust zemedel 10 no.8:
318-320 '63.

KRATKY, Jiri, inz.; NOSSBERGER, Vladimir, inz. dr.

Fat emulsions for the baking industry. Prum potravin 14
no.7:366-372 J1 '63.

1. Zavody potravinarskych a chladicich stroju, n.p., Pardubice,
Vyzkumny ustav Praha (for Kratky). 2. Vyzkumny ustav mlynskeho
a pekarenskeho prumyslu, Praha (for Nossberger).

KRATKY Jiri, inz.; NOSSBERGER, Vladimír, inz. dr.

Fat emulsions for bakeries. Prum potravin 14 no.8:415-419
Ag '63.

1. Zavody potravinarskych a chladicich stroju n.p., Pardubice,
Vyzkumny ustav, Praha (for Kratky). 2. Vyzkumny ustav mlynskeho
a pekarenskeho prumyslu, Praha (for Nossberger).

SOV/136-58-10-25/27

AUTHORS: nosulenko, A.I. and Romanenko, P.S.

TITLE: Readers' Conference of Beneficiation Workers (Chitatel'skaya konferentsiya obogatiteley)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 10, p 96 (USSR)

ABSTRACT: At the Tekeliyskaya obogatitel'naya fabrika (Tekeli Beneficiation Works) on July 3, 1958, a conference heard descriptions of new beneficiation equipment and methods based on material published in Tsvetnyye Metally, Gornyy Zhurnal, Byulleteni Tsentral'nogo instituta informatsii (Bulletins of the Central Information Institute) and Kaz NII and also new books. The following communications were made: by B.M. Berdnikov on new crushing equipment and automation; by P.S. Trofimov on new grinding-flotation equipment; by N.A. Kryukova on new flotation reagents; by S.B. Ardasenov on hydrocyclone operation; by G.S. Romanenko on foreign lead-zinc flotation practice. After discussions on these reports, N.F. Mogilev (Tekeli Works) summarized the proceedings and expressed the hope

Readers' Conference of Beneficiation Workers SOV/136-58-10-25/27

that similar conferences would be held in the future.

Card 2/2

L 23574-66 EWT(d)/EWT(m)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(l)
ACC NR: AP6002596 (A) SOURCE CODE: UR/0286/65/000/023/0092/0003

IJP(c) JD

AUTHORS: Nosule, L. V., Makogon, V. G., Olazkov, V. S.

ORG: none

14 TITLE: Device for transferring loads, principally hot-rolled rolls, from one
conveyer with chains on fixed supporting rollers to another. Class 81, No.
176819

18 SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 92-93

TOPIC TAGS: conveying equipment, conveyer

ABSTRACT: This Author Certificate presents a device for transferring loads, principally hot-rolled rolls, from one conveyer with chains on fixed supporting rollers to another. The device is in the form of an intermediate multichain conveyer with independent drive. For stable transfer of rolls without damaging their edges the chain sprocket wheels of the intermediate conveyer are mounted

SHKLYAREVSKIY, I.N.; VLASENKO, N.A.; MILOSLAVSKIY, V.K.; NOSULENKO, N.A.

Value and sign of the phase difference $\Delta\tilde{\delta}_p - \delta_s$. Opt. i spektr.
9 no.5:640-643 N '60. (MIRA 13:11)
(Reflection (Optics)) (Metals--Optical properties)

SHKLYAREVSKIY, I.N.; NOSULENKO, N.A.

Experimental test of Drude's formulae. Opt. i spektr. 12
no.6:769-771 Je '62. (MIRA 15:5)
(Optical measurements)

S/051/63/014/002/010/026
E032/R114

AUTHORS: Shklyarevskiy, I.N., and Nosulenko, N.A.

TITLE: Phase relations at the separation boundary between
two media

PERIODICAL: Optika i spektroskopiya, v.14, no.2, 1963, 247-251

TEXT: In accurate interferometric measurements the phase change on reflection at a separation boundary must be correctly taken into account. In an earlier paper (ZhTF, v.26, 1956, 333) it was pointed out that there was some doubt as to the magnitude and sign of the phase change. Some discussion arose in the literature as a result of that paper, and it was therefore decided to re-examine this problem in greater detail. The results of this analysis are now reported. Analysis of new experimental data and of calculations is used to show that the conclusions reached in the previous paper are in fact correct, and that the phase change on reflection δ for the p- and s-components of the amplitude

Phase relations at the separation ...

S/051/63/014/002/010/026
E032/E114

$$\left. \begin{aligned} \tan (\delta_p - \pi) &= \tan \delta'_p = \frac{2\mu_o \mu \chi \cos \varphi}{\mu_o^2 - (\mu^2 + (\mu \chi)^2) \cos^2 \varphi} \\ \tan (\delta_s - \pi) &= \tan \delta'_s = \frac{2\mu_o \mu \chi \cos \varphi}{\mu_o^2 \cos^2 \varphi - \mu^2 - (\mu \chi)^2} \end{aligned} \right\} (5)$$

where the light is assumed to travel from the medium with refractive index μ_o , the second medium has a refractive index $\tilde{\mu} = (1 - i\chi)$, χ is the angle of refraction, and φ is the angle of incidence. These formulas hold, provided $\mu_o^2 \sin^2 \varphi$ is small in comparison with $\tilde{\mu}^2$.

There are 2 figures.

SUBMITTED: May 12, 1962

SHKLYAREVSKIY, I.N.; NOSULENKO, N.A.

Phase shifts due to the reflection of light from metallic
surfaces coated with thin dielectric films. Opt. i spektr.
14, no.6:805-808 Je '63. (MIRA 16:2)

(Interferometry)

ACCESSION NR: AP4035430

S/0051/64/016/005/0338/0893

AUTHOR: Shklyarevskiy, I.N.; Nosulenko, N.A.

TITLE: Measurement of the dispersion of the phase discontinuity occurring in reflection of light from metals

SOURCE: Optika i spektroskopiya, v.16, no.5, 1964, 888-893

TOPIC TAGS: light reflection, coated optics, reflection phase discontinuity, absorption coefficient, silver, aluminum, copper, antimony

ABSTRACT: There have been several studies devoted to measurement of the dispersion of the phase discontinuity δ occurring incident to reflection of light from silver interferometric coatings; in most cases, however, there was determined the dispersion of the complementary quantity $\delta' = \pi - \delta$. The formulas for calculating the dispersion of δ , taken from various sources in the literature and applicable in different cases, are adduced. In the present study measurements were carried out for reflection from silver, aluminum, copper and antimony coatings. The interference

ACCESSION NR: AP4035400

the coated interferometer plates in front of the slit of a spectrograph (an ISP-67 spectrograph with a 1500 mm focal length camera was used) so as to obtain lines of equal chromatic order in transmitted light. The results are presented in figures together with calculated curves; for the most part the experimental points fall on the curves given by the formula for oxide coated metals, derived earlier by the authors (Opt. i spektr. 14, 247, 1963) and are reasonably close to the formula based on the index of refraction and the absorption coefficient. The values of the absorption coefficient for silver and aluminum deduced from the experimental data agree with the results of measurements by polarization methods. Orig. art. has: 17 formulas and 3 figures.

ASSOCIATION: none

SUBMITTED: 26Jul63

DATE ACQ: 22May64

ENCL: 00

SUB CODE: OP

RE REF SOV: 007

OTHER: 007

L 21174-65 ENT(1)/EWP(a)/ENT(m)/T/EEC(b)-2 RAEM(a)/IJP(c) WH

ACCESSION NR: AP5003029

S/0051/65/018/001/0102/0108

AUTHOR: Shklyarevskiy, I. N.; Nosulenko, N. A.; Ryazanov, A. N.

TITLE: Investigation of relative localization of interference fringes in transmitted and reflected light

SOURCE: Optika i spektroskopiya, v. 18, no. 1, 1965, 102-108

TOPIC TAGS: optical interference, interference fringes, silver film, mica, transmitted light, reflected light, phase shift

ABSTRACT: The shift in the interference minima of reflected light, relative to the maxima of the transmitted light, were measured in silvered mica strips with the aid of lines of equal chromatic order, as a function of the thickness of the silver layer, with an aim at ascertaining whether these shifts are affected by the thickness and effective optical constants of the silver layers. The surface of a plane-parallel mica strip was covered with a partially transparent layer of silver with approximate thickness 500 Å, and on one third of the opposite surface, the transparent layer of silver was deposited on the remaining two thirds, as